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CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE WILDLIFE MANAGEMENT IN CAMEROON: THE STORY OF PEGGY AN AFRICAN GREY PARROT

by Ajaga Nji, Simon A. Tamungang, W. L. Asong,
Mbafor Fidelia, Tsafack Antoine and Sabi B. Nji

Abstract

Parrots have historically been, and continue to be, the most exploited wild birds, vast numbers of them being taken from the wild, many of them destined to become household pets. However, it is frequently daunting to keep what was once a wild bird, that has been removed from its natural habitat. We report on our experience of managing a Grey Parrot *Psittacus erithacus*, named Peggy, in captivity. The management of Peggy, both before and following an accident, enabled us to better understand and appreciate the intricacies involved in the captive management of parrots in Cameroon. Peggy's accident led to us having to perform experimental emergency surgery in a attempt to save her life. We have no knowledge of such surgery being attempted before and it has compelled us to rethink how to manage a similar case, should it occur, in the future. Current policies and activities on wildlife management in Cameroon suggest that the country has both the will and the potential to sustainably conserve and exploit her wildlife endowment amidst socioeconomic and administrative setbacks. There is increasing interest in both the public and private sectors in conserving parrot populations and their habitats. There is an urgent need, however, for more specialist attention and material investment in wildlife management in Cameroon; and, above all, there is a need for further research and innovation in the management and conservation of the Grey Parrot population, in particular, and wildlife in general.

Introduction

With its varied wildlife habitats and ecosystems, Cameroon has some of the most spectacular wildlife in Africa. These assets represent the country's biological diversity and are part of Africa's biological heritage. At the same time, the country has a fast-growing human population, most of whom are rural dwellers, often living in poverty admidst increasing environmental degradation. The majority of the rural population depend on the land for traditional agriculture, but this is not sustainable given the current rapid growth rate of the population. The Cameroon Government strives to sustainably conserve the biodiversisty of the country, but has suffered setbacks emanating mostly from the way her environmental conservation policies have evolved since the colonial period. However, the government in collaboration, principally with a number of non-governmental organizations (NGOs), is making efforts to ensure that its existing policies are more effective and efficient and guarantee the sustainability of biodiversity conservation in Cameroon.

Parrots form part of the country's most cherished and exploited biological diversity, and the increasing demand for parrots is driving a probable unsustainable harvesting of the wild birds (CITES, 2001). The unsustainable harvesting of the wild parrots and the failure to manage their exploitation on a rational basis have led to population depletion in African countries, as tens of thousands of parrots are captured legally and illegally for local consumption and for export (Fry et al. 1988; Dandliker, 1992; TRAFFIC International, 2005).

Yet, here in the Cameroon, the number of parrot species, their population sizes and their geographical distribution are not well documented. Besides the direct removal of parrots from the wild, there is persistent deforestation and fragmentation of the remaining forests for timber, plantations, dams, road construction, real estate and various urbanisation projects. From 1994-2006, CITES annual export quota for Grey Parrots from Cameroon was 12,000 birds, though this quota was exceeded in some years when up to 24,000 Grey Parrots were exported (Dandliker, 1992; Mulliken, 1995; CITES, 2001). At present, the Cameroon authorities have no population based data that can be used to decide sustainable harvesting levels for parrots. The dearth of information and technology make it difficult for the administration to take sustainable parrot management decisions. Cognizance of this vacuum contributed to the design of the Cameroon Parrots Project, PARROTPRO, in 2000.

Its major goals are to enhance parrot resources conservation and related areas of wildlife conservation, by seeking suitable mechanisms for providing feedback to local communities on conservation strategies, the exchange of field experiences and best practise with parrot-friendly people in Cameroon and beyond. The overall goal of the project is to empower the conservation of parrot resources by the civil society through rural communities and, for the alleviation of poverty, while at the same time promoting the sustainable exploitation of their ecosystems.

One of the gaps that PARROTPRO has begun to fill is in improving the livelihoods of parrots in captivity in Cameroon. This is carried out through conservation education forums with individuals who keep parrots as household pets. We advise them on the best ways to improve the health and happiness of their parrots, by improved feeding (Tamungang et al. 2002;

Tamungang & Ajayi, 2003), human-parrot interactions, cage construction and management, and also advise them on dealing with parrot diseases.

Background to study area

The Republic of Cameroon (République du Cameroun) is a unitary republic in West Africa, on the Gulf of Guinea. It covers an area of 475,442sq km (183,569sq miles) and is the world's fifty-third largest country (it is somewhat larger than California). It is often called "Africa in miniature," on account of its geological and cultural diversity. Natural features include beaches, deserts, mountains, rainforests and savannahs. The highest point is Mt Cameroon (4,096m, (13,435ft)) and the largest cities are Douala, Yaoundé and Garoua. There are over 200 different ethnic and linguistic groups. Cameroon is well known for its native styles of music, particularly makossa and bikutsi, and its successful national football team. English and French are the official languages.

Cameroon is divided into five major geographical zones, distinguished by their dominant physical, climatic and vegetative features. The coastal plain extends 15km-150km (10 miles-90 miles) inland from the Gulf of Guinea and has an average elevation of 90m (295ft). Exceedingly hot and humid and with a short dry season, it is densely forested and includes some of the wettest places on earth. The South Cameroon Plateau rises from the coastal plain to an average elevation of 650m (2,130ft). Equatorial rainforest dominates this zone and the alternation between wet and dry seasons makes it less humid than the coast.

An irregular chain of mountains, hills and plateaus, known as the Cameroon range, extend from Mt Cameroon on the coast almost to Lake Chad at Cameroon's northern tip. This region has a mild climate, particularly on the Western High Plateau, although rainfall is high. Its soil is among the most fertile in Cameroon, especially around volcanic Mt Cameroon. Vulcanism here has created crater lakes. On August 21st 1986, one of these, Lake Nyos, belched out carbon dioxide and killed 1,700-2,000 people.

The southern plateau rises northward to the grassy, rugged Adamawa Plateau. This stretches from the western mountain area and forms a barrier between the north and south of the country. Its average elevation is 1,100m (3,600ft) and the temperature ranges from 22°C-25°C (71.6°F-77°F) with high rainfall. The northern lowland region extends from the edge of the Adamawa Plateau to Lake Chad and has an average elevation of 300m-350m (980ft-1,150ft). Its characteristic vegetation is savannah shrub and grass. This is an arid region with sparse rainfall and high median temperatures.

Materials and methods

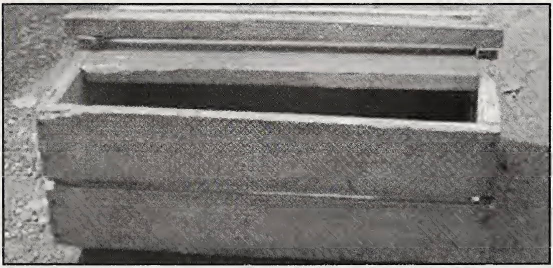
Hundreds of people keep parrots in captivity in Cameroon. The majority keep them as household pets, but they are also kept for a multitude of other reasons. Some are kept for use in traditional medicines and a few people keep them as a ready source of red feathers, which are plucked from the birds and used in cultural rites. Whatever the objectives of keeping a parrot at home, generally they are not well cared for, their health care, feeding and housing being of greatest concern. Many of the problems associated with the management of captive parrots are related to poor cage construction and management. In 2006, when we carried out a survey of cages constructed in Cameroon, we found that the standard of the cages we examined fell far below our expectations (see photo on following page). There are a number of reasons why many parrot keepers do not house their parrots in what we would consider to be good cages. These include not knowing where to obtain a good cage, because of poverty being unable to afford to buy a good cage, and ignorance of the required qualities of a good parrot cage. In response to these problems, two of the authors, Dr Simon A. Tamungang (Ornithologist and Project Leader of PARROTPRO) and Prof. Ajaga Nji (Rural Sociologist), both of the University of Dschang, Cameroon, designed a model parrot cage. The objective was to construct a suitable cage that is economically affordable, socially desirable, culturally acceptable, politically expedient and technically efficient (Nji, 1992). It will not only improve the happiness of the parrot, but also provide optimum hygienic conditions and promote social interaction between the parrot and members of the household. As can be seen in the photographs on p.7, it is of metal construction and when ready for use is fitted with wooden perches, to simulate those in the parrot's natural habitat, and add to the parrot's comfort, safety and happiness.

To test the suitability of the cage, a Grey Parrot, aged about two years old, was bought from a government certified parrot exporter in Yaoundé, Cameroon. We named the bird Peggy. She was placed in the cage, which was positioned at the entrance to the inner residence of Prof. Nji and his family, to give her the opportunity to interact with family members and visitors. It enabled her to become people-friendly, socialize easily and learn from regular interaction with the residents of the house. The family also has two German shepherd, guard dogs, about which there will be more later.

A fast learner

Within a few days of Peggy's arrival, we realised that she was an intelligent and fast learner. She began by imitating sounds such as the car alarm going off and the barking of the dogs. After a few months, she had begun to call the names of members of the family, beginning with that of Ngum, four-and-half years of age, the youngest daughter, who had been given the parrot as a birthday present. Within a year, Peggy had learnt the names of virtually every member of the household. In a voice identical to that of a human, she could call: Ngum, Sabi, Agwe, Mundih, Junior and Mummy. We suspect that she never called Daddy, because the name was scarcely ever used in the household and, therefore, she rarely got the opportunity to learn it. To enable her to learn a sound, such as a name, she had to hear it regularly.

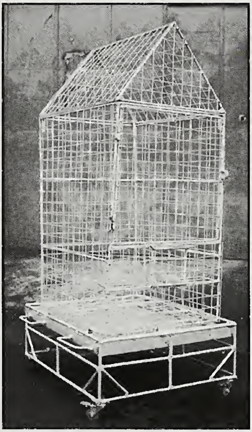
This was the smallest cage we found during our survey in 2006. The bird had no space to play and could not turn around freely.



An example of the type of crate that is used to transport parrots in Cameroon. The food is usually thrown on the floor, as a result of which it quickly becomes soiled by the birds' faeces.

A good time keeper

Mundih is the family member whose room was closest to Peggy's cage and she passed Peggy each time she entered or left her room. Mundih is an early riser, who usually gets out of bed at 5.30am, to begin her daily activities, or by 6.00am if she is a little late. As she went past Peggy's cage, she would say, "Good morning Peggy." Thus, Peggy's day would begin at 5.15am-5.30am, with the chorus of bird calls and other sounds that herald the arrival of dawn. At about 5.30am Peggy would begin to call Mundih and, if by 5.45am, Peggy had not seen Mundih, she would begin to call her loudly but very fondly. At 5.30am her calls of "Mundih, Mundih, Mundih," would be sharp and quick, but by 5.45am-6.00am her calls tended to be gentle, romantic and elastic. She would call: "Mund-i-h-oooooh, M-u-n-d-i-h-ooooh, M-u-n-d-i-h-ooooh." With this wake-up call, other members of the household would know it was, or would soon be, 6.00am.



The parrot cage constructed in 2007 in which Peggy was housed. For easier cleaning and transportation, it can be dismantled into five main parts.

The second person for whom Peggy acted as a faithful timekeeper was Ngum. The family run a nursery and primary school within the housing complex, where the youngest members of the household, Ngum and Ajaga Nji Jr, attend the nursery school, which opens its doors to pupils at 7.15am. They are expected to assemble by 7.30am for morning devotion and a hygiene check. Therefore, both Ngum and Ajaga Nji Jr, passed by Peggy at about 7.30am on their way to class each day of the school week.

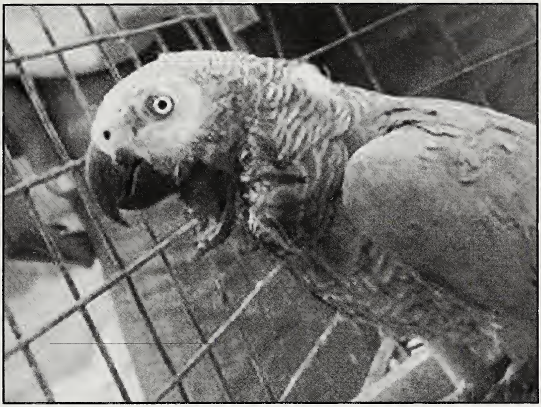
At exactly 7.30am, Peggy would begin to call Ngum, using short, loud calls, in the same way that she called Mundih. She would call her at least three times every few minutes for five to six minutes. Then, if Ngum did not show up within that time, Peggy would send out a kind of SOS call, that was both loud and elastic. Instead of just calling “Ngum,” she would call, “N-g-u-u-m, N-g-u-u-m” three or four times or until Ngum appeared and said, “Yes, Peggy,” to which she would respond by saying, “Hello,” as she greeted Ngum.

Throughout the day, Peggy would call out to other members of the family until they had all answered her. She was very healthy, active and friendly. With her beak she would reach out to the two German shepherd dogs, Gendarme and Police, and they would kiss her with their tongues. The dogs and Peggy were good chums and regularly had fun together. Therefore, we were quite unprepared for what happened next.

The accident

Accidents never announce the time they will happen, just as burglars do not announce their coming. At 3.30am on Saturday, January 24th 2009, Prof. Nji was awakened by a loud sound, as if someone was opening the gate leading into the porch where Peggy’s cage was located. About 10 minutes later, he was startled to hear her cry of distress. He jumped out of bed, ran downstairs and opened the door, to find that the gate to the porch was indeed open, and was shocked to discover that Peggy was bleeding profusely from a gaping wound in her neck. She was wailing, as in fright and confusion, she jumped from one perch to another, as blood continued to drip from the wound. The dogs had retreated into their kennels and wrapped themselves up, seemingly in regret, apologetic and engulfed by fear, as if they might have known the terrible injury they had inflicted on Peggy. There had been a power failure that night, so there was no electricity and Prof. Nji had to use a kerosene lamp in order to determine the full extent of Peggy’s injury. A closer examination revealed a deep wound and serious damage to the thyroid cartilage. Peggy was still trying to breathe but not in the normal manner, as the opening of the air passage was visible externally and could be seen opening and closing, as she tried to breathe in and out.

Prof. Nji went to the home of co-author Simon Tamungang to inform him of the accident and they immediately returned together to examine Peggy and determine the best course of action. Even though Dschang is a university town and a divisional headquarters, however, no information was available as to where in the community a veterinarian could be contacted. There used to be two vets at the university’s Department of Animal Science, but neither were in town that week. Three veterinary books were consulted (those by Forse, 1999; Davis, Karstad & Trainer, 1981; Hoff & Davis, 1982), but not even the first of these, *Where there is no Vet*, proved of any help. Consequently, we used household hydrogen peroxide to clean the wound and attempted, to the best of our ability, to administer first aid to Peggy. She was struggling to drink, but because her oesophagus had been severed,



Peggy's horrific injury.

was unable to do so.

Prof. Nji phoned a vet in Bamenda (120km (approx. 68 miles) away), but after he had described the extent of the injury, the vet concluded that if the oesophagus had indeed been severed, there was no medical treatment available that could save the bird.

Peggy was very thirsty and hungry, but all efforts by her to drink from her bowl, were futile. We tried to feed her and give her water using an infusion kit. This was obtained from a clinic and carefully washed and sterilized. The bottle was then filled with water and placed on the cage above her head, in the hope that the dripping water would entice her to open her mouth and let the water trickle down into it. Even this though did not work.

In his efforts to save Peggy's life, Prof. Nji attempted to contact the town's renowned surgeon, an experienced physician of the Royal College of Surgeons in London, with nearly 30 years of dedicated service to human health in Dschang. However, he was out of town attending the funeral of a colleague and friend.

The veterinary nurse

The following day, Sunday, January 25th 2009, little Ngum went to Peggy's cage to play with her in her usual way, but when she saw what had happened to her special friend and birthday gift, she burst into tears. Shortly before this, Simon Tamungang had called to say that he had found a veterinary nurse, who would be available at 1.00pm, following the church service. Furthermore, the surgeon was back in town. He was called and urged to undertake experimental surgery on Peggy, but was reluctant on the grounds that the anatomy of parrots and other lower animals was outside his realm of expertise.

After receiving assurances, he was persuaded to undertake surgery on Peggy and, at 2.00pm, a team of four, Simon Tamungang, Prof. Nji, the veterinary nurse and the surgeon, met to examine her and attempt to come up with a life saving strategy. By then the sun was blazing down and Peggy had not had any food or water for the past 35 hours. Preliminary discussions centred on the bird's anatomy, what would be required for the surgery and the possible outcome, the consensus being that there was perhaps a 50% chance of success.

The preparation

It was, as far as we were aware, going to be the first surgical operation ever to be performed on such an animal in Cameroon. Therefore, it was difficult to know exactly what to do and where to obtain the appropriate surgical materials and equipment. On the list were: lidocaine (lignocaine), hydrogen peroxide, cotton wool and gauze, surgical gloves, suture needles, catgut thread, silk sutures, scissors, forceps, syringes and needles, scalpel blades, antibiotics (oxytetracycline 5%), anti-inflammatory drugs, a pre-sterilized surgery pack containing drapes, syringes, needles, swabs, a pair of scissors, a kidney dish, gauze, iodine, catgut suture thread (absorbable), sterile silk thread (non-absorbable), stress vitamins, sterilised dressings, etc.

It was three hours later before we were ready to begin surgery. This was because of a number of difficulties:

1. Some of the items were not available in the local pharmacies and those that were available were expensive. Insulin syringes (preferred because of the small size of the needle) were, for example, on sale in the pharmacies at 300 francs CFA (approx. US$0.65) each. However, we succeeded in buying them from a street vendor for 100 francs CFA (approx. US$0.25) each.
2. It took 15 minutes longer than we hoped to clean the wound and administer the local anaesthetic.
3. Because it was a Sunday there was a lack of emergency services and we had to improvise at times in order to proceed with the surgery.
4. The veterinary nurses (the first nurse was joined by a second nurse) had not done this kind of work before. Surgery on animals had only been taught on a fairly superficial level at their schools. Therefore, even more responsibility fell on the surgeon, who demonstrated his dexterity handling the needles and tiny sutures.

The operation

The surgery was performed in a specially prepared operating theatre in a renown human clinic, under the professional guidance of the surgeon.

One of the veterinary nurses cleaned the wound with hydrogen peroxide, then a local anaesthetic, 0.1ml of lidocaine (lignocaine), was administered to the tissue of the neck and oesophagus, using a disposable insulin syringe. The second veterinary nurse and Peggy's attendant held her beak and claws, under the supervision of Simon Tamungang, while the surgeon proceeded to suture back together the torn anterior and posterior sections of the oesophagus, the damaged thyroid glands and neck muscles, etc. That having been completed, the skin was sutured back together, making sure that the torn parts of the lower mandible were held in the correct position, on either side of the jaw. Two stitches were inserted on the right side and another on the left side. During the suturing, Peggy was turned from side to side to rest. Approximately 0.1ml of dexaphenylamine, an anti-inflammatory drug, was injected into the right sternal muscle. It was administered following surgery and was expected to remain effective for three days. In addition, 0.1ml of stress vitamins were injected into the left sternal muscle and they too were expected to remain effective for three days. Finally, a tincture of iodine was applied to the wound. Peggy remained calm but active throughout the operation which took one-and-a-half hours.

Postoperative therapy

As Peggy had not had any food or water for 48 hours prior to the surgery, the team felt that she should be given some glucose to boost her energy and help keep her afloat. However, a vein could not be found through which the glucose solution could be injected, therefore, we administered the anti-inflammatory drug and an anti-stress solution. The wound was cleaned with Povidone iodine. The operation appeared to have been successful and the prognosis looked good and we were hopeful she would recover. At 7.00pm (19.00hrs) she was taken home.

Outcome

On arrival home, Peggy was placed in her cage and we watched for 15 minutes, in the hope that a miracle would occur. Unfortunately, however, 20 minutes later, Peggy shivered, as if trying to fly, and at 7.35pm (19.35hrs) dropped dead. The surgical team greeted the sad news with a mixture of regret, that after all that she had been through, she had died, but with the satisfaction that each of them had done the best they could to save her life. Peggy had 10 long red tail feathers and three new ones coming through, together with 22 shorter red tail-coverts, which we have preserved to honour her memory.

Results and discussion

Our experience, described above, reveals:

1. The saliency of multidisciplinary teams in wildlife research in order to achieve a better understanding, explanation and prediction of wildlife behaviour and handling in post-captivity. This is evidenced by the combination of ideas and skills that culminated in the surgery on Peggy.
2. The need for curriculum development in wildlife management and appropriate training for veterinarians. Just as engineers and technologists in Africa need appropriate training to keep pace with rapid social change and the technological revolution, the training of veterinarians needs sharpening, both in quality and relevance (Nji, 1979; 1985a). Research, particularly in the livestock sector, has for a long time been identified as one of the weak links in agricultural development in Africa (Nji, 1993).
3. The emerging fulfilment of the dream to save parrots in Cameroon (Tamungang, 1996). Parrot cage design, construction and placement are paramount in ensuring the health and safety of a parrot in the home environment. A good cage for a Grey Parrot is expensive, but it is worth it, to ensure that the bird remains healthy, happy and secure. Acquiring a parrot before looking around for a cage can often result in the untimely death of the bird, due to poor housing, handling and feeding conditions. In Cameroon cheap cages are often made with wood, which the Grey Parrot has a natural tendency to chew holes in and escape.
4. The urgent need to integrate social science into all research programmes in order to capture the dialectic between man and the environment (Nji, 1991). The composition of Peggy's surgical team reveals the saliency of this assertion.
5. A scarcity of animal clinics, drugs and other appropriate resources and established policies.
6. Problems of availability and affordability of both wildlife and livestock equipment.
7. A dearth of knowledge and information on the management of the Grey Parrot and some other bird species and, of their interaction with other animals, such as dogs. Knowledge of the latter would possibly have led us to take greater precautions, which could have prevented the accident which led to Peggy's untimely death.

Prior to the accident, Peggy had been a healthy and smart pet and member of the household, who had learnt fast, socialized early and integrated herself rapidly into the home environment. The accident that led to her death, occurred in the middle of the night and, therefore, exactly what happened can only be a matter of conjecture. We believe that Police, being a huge and tall dog, might have manipulated the gate until it finally came open. He was then free to approach Peggy's cage and put his paw in to touch/caress her as usual, but she pulled away from his long claws and this resulted in the accident. Several times during the day the dogs had been seen playing with Peggy, so it was not the first time that they had been in close contact with each other. We believe that if the dogs had been out to harm Peggy, they would have tried to have done so well before this. Once the door of Peggy's cage was accidentally left open, when the dogs were loose, and nothing untoward happened.

Conclusions and recommendations

This case has added to our knowledge of the Grey Parrot and particularly our knowledge of its captive management and, especially, its interaction with domestic animals such as dogs. Looking back, we realise that we may have made some mistakes in the management of Peggy and in the way the operation was handled. This has led us to come up with the following recommendations:

1. The design of the present parrot cage is in our experience satisfactory, except that the mesh should be smaller to prevent an animal such as a dog being able to reach in through it. However, the larger mesh does enable the keeper to have easy and frequent tactile interaction with the bird, which we consider to be an important factor. A Grey Parrot living alone in a cage may suffer from loneliness and boredom and, if prevented from interacting with humans and other animals, may resort to feather plucking. Therefore, if a smaller mesh is used to prevent animals such as dogs and cats from being able to reach the bird, another means of playing/interacting with the bird must be found, perhaps by letting it out of the cage each day for controlled play/interaction with its keeper.
2. When guard dogs, cats or wild animals are kept in a household, a parrot (or any other pet bird) should be confined within a safe, well protected area.
3. Parrot owners should be encouraged and assisted to acquire sufficient skills to enable them to give basic first aid treatment to their bird.
4. Not enough is known about administering anaesthetics to birds and other small animals. We believe it is high time that bird protection organisations and researchers recognised the need for factsheets and 'tool kits' for those keeping such birds as the Grey Parrot.
5. We believe that the decision to administer a local anaesthetic and proceed with the surgery, despite the fact that Peggy had not had any food or water for 48 hours, was the best option available to us at the time. We debated at length whether or not surgery should proceed without the use

of a local anaesthetic, but the team was of the unanimous opinion that to proceed without the use of anaesthetic would have been tantamount to cruelty.

6. We used hydrogen peroxide, in preference to alcohol, as we considered the latter too powerful an antiseptic with which to clean Peggy's wound. It is possible that in the process of cleaning the wound, some of the liquid went into her stomach and accelerated her demise. We considered having an autopsy, but were dissuaded by the cost, particularly in view of the likely outcome. In retrospect, we believe, it might have been a mistake to have proceeded with the local anaesthetic, when Peggy had not had any food or water for 48 hours. Equally, we believe, that Peggy may already have been exhausted and suffering from hunger and/or dehydration, leading up to the operation, during which she suffered further stress. She had to be restrained and her beak and legs held by surgical-gloved hands, whereas appropriate instruments of restraint, had they been available, would have been helpful. Inhalation of air and atmospheric microbes through the open oesophagus may have caused secondary infections and hastened her death. Above all though, the main cause of Peggy's death was likely to have been as a result of the stress and loss of blood immediately following the accident.
7. Our views and concerns highlight the need for further research and innovation in the conservation and captive management of the African Grey Parrot.

Acknowledgements

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The authors are keen to get as much feedback as possible on all aspects arising from the above article and, in particular, those leading up to the accident and their subsequent efforts to save Peggy's life. They welcome comments and criticism of their theories, methodology and the views they have expressed. I would suggest that these are sent to Dr Simon Tamungang at the University of Dschang. E-mail:atamungang@yahoo.com

THE SPIRIT OF JEAN DELACOUR LIVES ON AT PARC DE CLÈRES

by Pierre de Chabannes

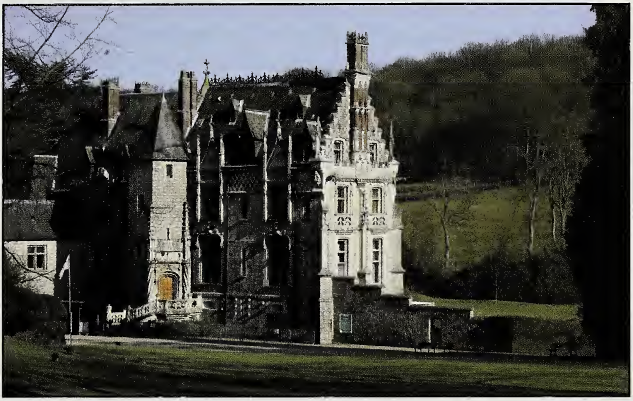
One whose main interests are neither zoology or birds, could hardly imagine what lies hidden behind the walls of the Parc de Clères. At first glance it does not look as so it is home to one of the finest collections of pheasants and waterfowl in the world. When I first visited it in 2006, it fitted my idea of a typical French country estate, with a château, a manor house and landscaped gardens, which could have belonged to an aristocratic family. After walking only a short distance in the grounds of the Parc de Clères, however, one finally realises that it is much more than merely somewhere to take a casual "Sunday afternoon walk."

The village of Clères is in the hilly part of northern Normandy, in north-west France. It is a drive of 40 minutes from the city of Rouen, which is famous for its cathedral and boat festival, called *L'Armada de Rouen*, which takes place there each year. For those who prefer travelling by rail, there are regular trains from Paris, with a change at Rouen main station.

The Château de Clères was acquired by the late Jean Delacour in 1919 in order to house his bird collection. He had aviaries built in the gardens, some of which remain in use today, to display the numerous pheasants he collected during his many field trips to south-east Asia. He also collected many other tropical birds, including hornbills, fruit doves and other Asian softbills, as well as an impressive number of waterfowl, that he kept and bred at Clères.

Parc de Clères was badly bombed during the Second World War and the collection was lost. Delacour, who had left France in 1940 to pursue his ornithological work in the USA, where he acted as a Technical Adviser at Bronx Zoo and worked as a Research Associate at the American Museum of Natural History, before later becoming Director of History, Science and Art at Los Angeles County Museum, opened the park to the public in 1947 and gifted it to the Paris-based French Museum of Natural History, in the hope of accelerating its rehabilitation following the war. Although Delacour continued to reside in the USA, he returned to Clères each summer until his death in 1985.

Until 2008, the museum owned and administered the park, but it was clear that it did not have the funding and time to renovate the old aviaries and build new exhibits in order to attract more visitors. In early 2009, it was decided that the park should come under the administration of the Regional Council of Haute-Normandie so that the long-awaited development of the



Pierre de Chabannes

Château de Clères for many years the home of Jean Delacour, President of the Avicultural Society 1972-1985.

park could finally begin. It has made a start by building new aviaries to house owls, Madagascar birds and egrets; and to house lemurs. In addition, a number of other projects are being studied with a view to the park playing a major role in international wildlife conservation.

The Parc de Clères currently occupies an area of 70 hectares (approx. 170 acres), 13 hectares (approx. 30 acres) of which are open to the public. My favourite time of the year to visit Clères is in the spring, around about April-May, in order to see most of the ducks in breeding plumage and to try to catch glimpses of the nuptial displays of the pheasants.

The aviaries

Arriving early in the morning, I chose to first have a look at the aviaries. On my way to them, I passed a breeding pair of White-cheeked Gibbons *Nomascus leucogenys*. The first of these gibbons to be kept in captivity in Europe were brought from what was then Indochina in the mid-1920s by Jean Delacour. Above their enclosure is a small row of aviaries housing Peach-fronted (Golden-crowned) Conures *Aratinga aurea* and White Cockatoos *Cacatua alba*. A short walk through a lovely garden, leads to the oldest exhibits in the park, which house the first of the pheasants, some waterfowl and other tropical birds. The particular way in which these aviaries are landscaped help give the park its charming atmosphere of being part of an "ancient French château," although it must be said that the aviaries do not always meet the occupants' requirements.

Among the birds housed in these aviaries are a group of Pied Avocets *Recurvirostra avosetta*, a pair of the now rarely exhibited Mikado Pheasants *Syrmaticus mikado*, some Wonga Pigeons *Leucosarcia melanoleuca*, a pair of Fischer's Turacos *Tauraco fischeri*, a breeding group of Stone Curlews *Burhinus o. oedicnemus*, some Ringed Teal *Callonetta leucophrys*, a few Northern Lapwings *Vanellus vanellus*, a Blacksmith Plover *V. armatus*, a pair of the Endangered Edwards's Pheasant *Lophura edwardsi* and the very rare Greater Brazilian Duck *Amazonetta brasiliensis ipercutiri*.

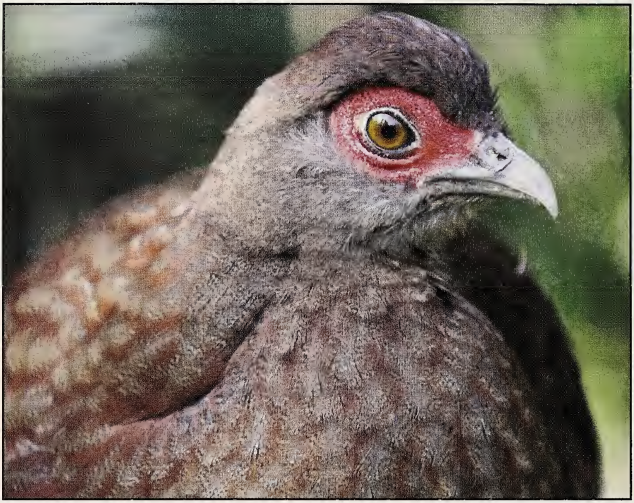
From there I usually go to the smaller aviaries, located on the left-hand side of the complex, in which are kept medium-sized species of parrot, such as Derbyan Parakeets *Psittacula derbyana*, Green-cheeked Amazons *Amazona viridigenalis*, Grey Parrots *Psittacus erithacus* and Eclectus *Eclectus roratus*. Also housed in these aviaries are Red-billed Pigeons *Patagioenas f. flavirostris*, a species not kept anywhere else in Europe, a male Ceylon Junglefowl *Gallus lafayetii* and one of the last San Blas Jays *Cyanocorax sanblasianus* kept in a European park. The path ends by an aviary built in 2008 to house a small group of Great Grey Owls *Strix nebulosa lapponica*.

On the other side of the aviary is a grassy enclosure which was created in 2009 to display a young pair of Red-crowned Cranes *Grus japonensis*. This Endangered species is now much more common in European zoos than it is in Asia, but it is still hardly ever bred. Let us hope that this pair which only recently arrived at Clères produce many offspring for the European Endangered Species Programme (EEP).

Another new exhibit is a walk-through aviary. It is nicely landscaped and houses a breeding group of the Critically Endangered Northern Bald Ibis *Geronticus eremita*, along with Little Egrets *Egretta garzetta* and Black-crowned Night Herons *Nycticorax nycticorax*. Then there is a large Madagascar exhibit which was completed in 2008. It houses Alaotran Bamboo Lemurs *Hapalemur alaotrensis*, the first lemurs to be kept in the park for many years. They have already bred, having first done so in late 2008 and then again in 2009. They live along with the Endangered Madagascar Teal *A. bernieri* and Meller's Duck *A. melleri*, that were first kept there in the 1930s. It is odd that apart from Paris Zoo (Parc Zoologique de Paris, Vincennes), which has closed for extensive renovation, very few French collections have Madagascar exhibits, showing lemurs and birds, etc.

On the other side of the narrow path is a row of medium to large aviaries used exclusively for keeping and breeding Galliformes. These aviaries have recently been landscaped and now have more plant cover and more perches available, which has led to improved breeding results, especially for rarer species such as the Crestless Fireback *L. e. erythropthalma*, which is not shown anywhere else in France. There are also Great Curassows *Crax r. rubra*, a pair of recently arrived Ocellated Turkeys *Meleagris ocellata*, a pair of Vieillot's Crested Firebacks *L. ignita rufa* and, most importantly, two pairs of the rarely seen Salvadori's Pheasant *L. i. inornata* from Sumatra. The park is famous worldwide for its breeding successes with both Edwards's Pheasant, which is the subject of a European Endangered Species Programme (EEP), and the Vietnamese Pheasant *L. hatinhensis*, as well as with Salvadori's Pheasant which, for a long time, has not been seen in captivity anywhere else in Europe. Alain Hennache, Curator of Birds at Clères, Studbook Keeper for Edwards's Pheasant and (with Dang Gia Tung, Curator of Birds at Hanoi Zoological Gardens) joint Studbook Keeper for the Vietnamese Pheasant, is among pheasant experts investigating whether or not the Vietnamese Pheasant is a valid species. He has observed how Edwards's Pheasants hatched at Clères regularly go on to grow white tail feathers (a characteristic of the Vietnamese Pheasant) despite the fact that their parents are pure-bred Edwards's Pheasants. The investigation is continuing and could lead to a change in the taxonomic status of the Vietnamese Pheasant.

By following the main path, one arrives at the upper section of the pheasant breeding area. On the left is a huge block divided into approximately a dozen aviaries, each quite small, dark, and not very well landscaped. This very old exhibit will soon be demolished and new, bigger, more suitable aviaries built in their place. The present aviaries house more rarities such as (Berlioz's) Silver Pheasant *L. nycthemera berliozi* (a subspecies described by Delacour & Jabouille 1928), which breeds very successfully at Clères and a large number of which are kept there, along with three other subspecies, namely *L. n. lewisi* (also described by Delacour & Jabouille 1928), *L. n. engelbachi* and *L. n. beaulieui* (both described by Delacour 1948). Also housed in these aviaries are a pair of Himalayan Monals *Lophophorus impejanus*, some more Edwards's Pheasants, a pair of the now rarely kept Elliot's Pheasant *S. ellioti*, a pair of (Honshu) Green Pheasants *Phasianus versicolor robustipes*, a male Palawan Peacock-Pheasant *Polyplectron emphanum*, a Lady Amherst's Pheasant *Chrysolophus amherstiae*, a pair of Temminck's Tragopans *Tragopan temmincki* and a pair of Blue Eared Pheasants *Crossoptilon auritum* - a quite common species in the past but now getting rare in aviculture, especially in France. There is a flock of Red-billed Pigeons, a Barred Cuckoo-Dove *Macropygia u. unchall*, a group of Laughing Kookaburras *Dacelo novaeguineae* and a pair of Red-billed Blue Magpies *Urocissa erythrorhyncha occipitalis*, as well as a female Hume's Pheasant *S. h. humiae*, which following the death of the last male in 2008, is now the last specimen of this species in a public collection in France. Finally, there is a pair of Imperial Pheasants *L. imperialis*, a bird



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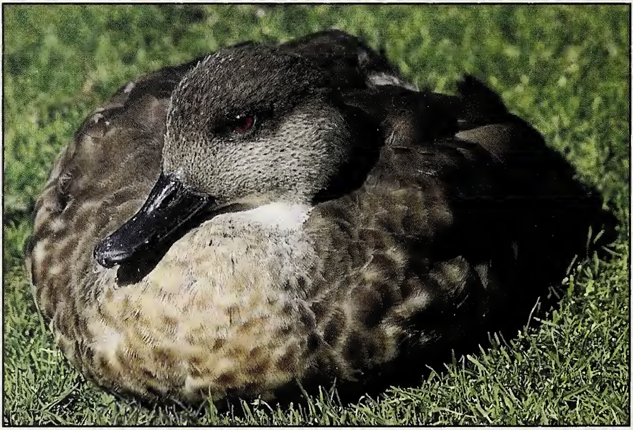
Female Salvadori's Pheasant.



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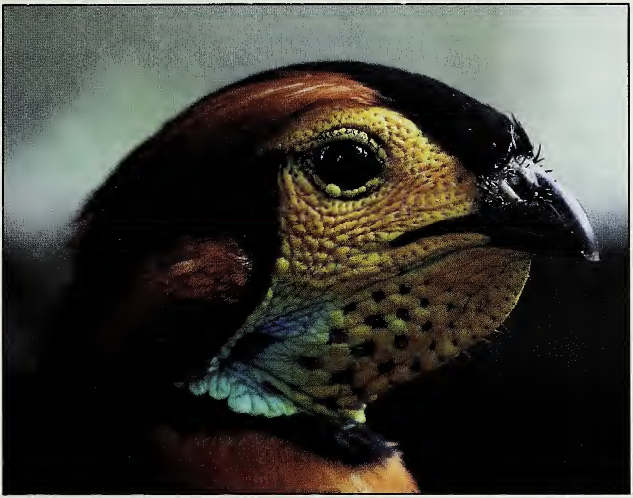
Crested Duck *Anas* (*Lophonetta*) *specularioides alticola*.



Pierre de Chabannes

Blyth's Tragopan.

discovered by Delacour in Vietnam in 1923 (and described by Delacour & Jabouille 1924). The original two birds were brought to Clères, where they bred for the first time in 1925 and it was from this pair that the European and American populations were descended. Modern research, however, suggests that the Imperial Pheasant is in fact a naturally occurring Silver x Edwards's Pheasant hybrid. Captive-bred Silver x Edwards's Pheasant hybrids match perfectly the few known Imperial Pheasants. The latter are almost impossible to find in captivity nowadays and the birds at Clères are probably the only known captive pair in Europe and, possibly, anywhere else in the world, at this moment.

A grassy enclosure behind the above facility, houses a pair of Emus *Dromaius novaehollandiae* and Cereopsis Geese *Cereopsis novaehollandiae*. The final group of public aviaries are a lot larger and much better landscaped. The largest house waterfowl, such as Hooded Merganser *Lophodytes cucullatus*, Greater Brazilian Duck and the rarely exhibited Blue-winged Teal *Anas discors*, which are considered too delicate to be kept free on the large lake. On the other side there are a pair of White Eared Pheasants *C. crossoptilon drouinyi* (the only subspecies kept in European collections), a pair of Satyr Tragopans *T. satyra,* a pair of Temminck's Tragopans and a single male Cabot's Tragopan *T. caboti* (a species being bred off-display at the park), as well as the rare Puff-backed Bulbul *Pycnonotus eutilotus*, a small group of Brush Bronzewings *Phaps elegans*, some Crested Quail-Doves *Geotrygon versicolor* and a few Crested Pigeons *Ocyphaps lophotes*.

Most of the pheasant collection is not on view to the public. I was though once fortunate enough to visit the off-display area and recall seeing a pair of Cheer Pheasants *Catreus wallichi*, a male Ruffed Grouse *Bonasa umbellus*, which displayed in front of me for several minutes, some Grey Peacock-Pheasants *P. b. bicalcaratum*, a Croaking Ground Dove *Columbina cruziana* and the only known captive Blyth's Tragopan *T. blythii* in France - the bird in question being an old male.

The château used to house a delightful collection of tropical birds, including hornbills (the Great *Buceros bicornis* being the highlight), toucans and a few hummingbirds, but this is no longer open to the public.

Free roaming

One may think, as I did during my first visit, that most of the more interesting birds are to be seen in the aviaries, but after discovering the beautiful gardens and the area around the lake, I quickly changed my opinion.

There is a really beautiful area with several paths leading up into a wooded area towards the back of the park, where there are Bennett's Wallabies *Macropus rufogriscus*, a herd of Blackbuck *Antilopa cervicapra*, some Chinese Water Deer *Hydropotes i. inermis* and lots of Blue Peafowl *Pavo cristatus*, including some white ones, roaming free.

There are two different areas with ducks and other waterfowl, etc. The first is an enclosed grassy field with a stream and a small off-display area into which the birds can retreat and get away from the visitors. Usually, the first birds which come into view are the Demoiselle Cranes *Anthropoides virgo*, European White Storks *Ciconia ciconia*, a pair of Southern Screamers *Chauna torquata* and a breeding group of Sacred Ibis *Threskiornis aethiopicus*. Then, looking more closely and waiting patiently, one is likely to see Chiloe Wigeon *A. sibilatrix*, Lesser Canada Geese *Branta canadensis minima*, now frequently treated as a subspecies of the Cackling Goose *B. hutchinsii minima*, Red-breasted Geese *B. ruficollis*, a large flock of Magpie Geese *Anseranas semipalmata*, White-faced Whistling Ducks *Dendrocygna viduata*, Black-bellied Whistling Ducks *D. autumnalis* and a single specimen of the West Indian Whistling Duck *D. arborea* - a species almost never seen in French zoological collections. There are also Emperor Geese *Anser canagicus*, a pair of Ross's Geese *A. rossii*, a single, now rarely seen, Ashy-headed Goose *Chloephaga poliocephala*, the Vulnerable Lesser White-fronted Goose *A. erythropus*, a pair of Maned Geese *Chenonetta* *jubata* and a pair of the rarely exhibited Blue-winged Goose *Cyanochen cyanopterus*. Four, nearby, small grassy enclosures, each close to the water, house several species of duck, including a group of Spot-billed Ducks *A. p. poecilorhyncha*, a breeding group of Falcated Ducks *A. falcata*, some Ruddy Ducks *Oxyura jamaicensis*, the Critically Endangered Laysan Teal *A. laysansensis* and a small group of Buffleheads *Bucephala albeola*, as well as Trumpeter Swans *Cygnus buccinator*.

The lake and surrounding area are home to an extravaganza of waterbirds, which are joined sometimes by a few Blackbuck and peafowl, that are fed close by at the end of the day. For visitors, the most eye-catching of the waterbirds are, of course, the flamingos. The flock is composed mostly of hybrids, a mix of Chilean *Phoenicopterus chilensis*, Caribbean *P. ruber* and Greater Flamingos *P. roseus*. They are free to roam, but usually remain out in the middle of the lake and come to the water's edge only at feeding time.

The large, friendly flock of Hawaiian Geese *B. sandvicensis* that breed each year, mingle with the visitors, begging them for food and sometimes, as happened to me, pecking at their clothing and shoes. The large flock of Bar-headed Geese *A. indicus* usually spend most of the day in the tall grass in a nearby field and are best seen in the early morning and towards the end of the day. The pair of Greater Magellanic Geese *C. picta leucoptera* is easy to spot and there is a small group of Greater White-fronted Geese *A. albifrons flavirostris* and some Snow Geese *A. c. caerulescens*. Some of the less shy ducks, such as the Chestnut Teal *A. castanea*, a species not often encountered in French zoological collections, can often be found resting close to the main path.

Most of the ducks stay close to the water and usually spend the day resting on the muddy bank, separated from the visitors by a low fence. There are Black Swans *C. atratus*, a group of Fulvous Whistling Ducks *D. bicolor*, Barnacle Geese *B. leucopsis*, Ruddy Shelducks *Tadorna ferruginea*, a pair of Australian Shelducks *T. tadornoides* and a single male paired with a female South African Shelduck *T. cana*, as well as a large group of Common Shelducks *T. tadorna* and a lone female Radjah Shelduck *T. r. radjah*. There are many Wood Ducks or Carolinas *Aix sponsa* and Mandarins *A. galericulata*, Eurasian Wigeon *A. penelope*, Gadwall *A. strepera*, a small group of Baikal Teal *A. formosa*, some Common or Eurasian Teal *A. c. crecca*, a large group of Speckled (Chilean) Teal *A. f. flavirostris*, Cape Teal *A. capensis*, a pair of Yellow-billed Ducks *A. undulata* and some more Spot-billed Ducks. The single, rare specimen of the Pacific Black Duck *A. superciliosa pelewensis*, is a bird I had never seen before. Other waterfowl living on and around the lake, include Northern Pintails *A. acuta*, a large group of White-cheeked Pintails *A. bahamensis rubrirostris*, Silver Teal

A. versicolor and the closely related Puna Teal *A. puna*, Cinnamon Teal *A. cyanoptera*, a species rarely seen in French zoological collections, three pairs of Philippine Ducks *A. luzonica*, a female Red Shoveler *A. platalea*, a breeding group of European Shovelers *A. clypeata*, a male Hottentot Teal *A. hottentota*, some Marbled Teal *Marmaronetta augutirostris*, a large group of Red-crested Pochard *Netta rufina*, Rosybill *N. peposaca*, Common Pochard *N. farina*, Tufted Ducks *Aythya fuligula*, Lesser Scaup *A. affinis* and the two subspecies of the rare Crested Duck, namely *Anas* (*Lophonetta*) *s. specularoides* and *A.* (*L.*) *s. alticola*.

A pair of Buff-cheeked Gibbons *N. gabriellae* live in the trees on an island in the lake and plans have been made to introduce a group of Ring-tailed Lemurs *Lemur katta*. Living in three grassy enclosures by the water are Reeves's Muntjac *Muntiacus r. reevesi*, Black Crowned Cranes *Balearica p. pavonina* and a further pair of White Eared Pheasants.

I was struck by the amazing diversity of the Anatidae collection and was especially pleased to see the Crested Ducks, which are so rarely seen in French zoological collections. I was also impressed by the way in which so many of the species are identified right down to the correct subspecies.

There have been difficulties in the past, but good progress is now being made at the Parc de Clères, and the spirit of Jean Delacour continues to live on. Situated in the Normandy countryside, it provides a good insight into the history of captive bird keeping and breeding and an enjoyable day-out away from the noise and hustle and bustle that are all too often part of modern day life.

Acknowledgements

I would like to thank Dr Alain Hennache and all the keepers who welcomed me to the park and answered all my questions. Their valuable help was very much appreciated and the writing of this account of my visit would have not been possible without their assistance. I would also like to thank Josef Lindholm, Senior Aviculturist at Dallas World Aquarium, whose insights, guidance and kind words helped and encouraged me to write about my visit the Parc de Clères, as well as to other collections around the world, which will be the subjects of articles in future issues of the magazine.

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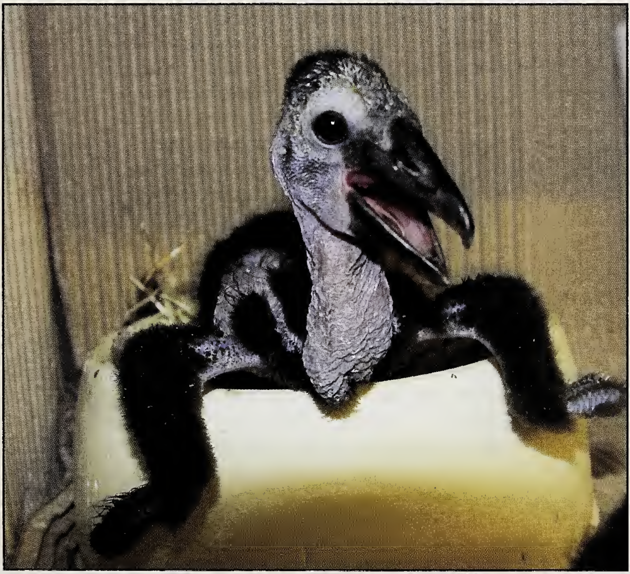
WELTVOGELPARK WALSRODE - THE BEGINNING OF A NEW ERA

by Simon Bruslund Jensen

The takeover of Vogelpark Walsrode by the Belgian company Floralux and its owners Kris Carrein and Geert Vermeersch in April 2009, heralded the beginning of a bright new era here at the park. It has been renamed Weltvogelpark, which in German means world bird park and is in many ways self-explanatory. "The park is not changing direction, so much as getting back on the right course," said General Director Geer Scheres.



Weltvogelpark Walsrode

Compared to the chicks of other storks, those of the African Open-billed Stork are especially active and have very characteristic loud quacking calls.

A specialised zoological institution with an outstanding collection of birds, Weltvogelpark Walsrode plans to set new standards for bird parks. Our first breeding season under new ownership went very well and there were a number of highlights.

The two most southerly species of pelican are the Australian species *Pelecanus conspicillatus* and the Peruvian Pelican *P. thaga*. They are genetically programmed to breed during the southern summer, so, in Europe breed in the winter months. Our birds are housed during the winter in heated greenhouses with a large pool. During the 2008/2009 breeding season we succeeded in rearing four Australian Pelicans and nine Peruvian Pelicans, which was a good result that strengthens both breeding groups for the future. At the time of writing (March 2010), the 2009/2010 breeding season is still in progress. The freshly-laid eggs are carefully removed by keepers Matthias-Melte Müller and Thomas Eichler, who are also responsible for keeping records of which birds are paired together and which pairs have produced the eggs. Leaving the eggs with the parents would be too hazardous in our very lively small colony. One Australian Pelican chick has been hatched so far this year in our hand-rearing station.

Our Madagascar Pond Herons *Ardeola idae* reared their own young in 2009 in our communal aviary for Madagascan mangrove birds. Due to their secretive behaviour one of the nests was not detected until the chicks were almost ready to fledge. The Madagascar Pond Heron is currently maintained in captivity only at Weltvogelpark Walsrode, therefore, the five young raised in 2009 will play an important role in enabling us to maintain a viable population of this endangered species. In the same aviary the equally rare Blue-eyed Sacred Ibis *Threskiornis bernieri* succeeded in rearing a single youngster. African Open-billed Storks *Anastomus lamelligerus* also occur in the depleted mangrove forests of western Madagascar. Although the three species nest alongside each other in the wild, in our aviary the Open-billed Storks are by far the most dominant species and disturb the ibises and herons, not least because they steal nest material from one another and from the other species.

Because Open-billed Storks feed almost exclusively on large freshwater snails that are difficult to obtain here in northern Germany, the parents rarely succeed in rearing their own young. Fortunately, we have managed to perfect the hand-rearing of them using commercially available digestive enzymes such as Creon and best quality day-old rats. In 2009, 14 young were successfully reared in our hand-rearing station, an improvement on our previous record from 2005, when seven chicks were reared.

With the rarely kept Southern Bald Ibis *Geronticus calvus* and the rarely kept Madagascar Crested Ibis *Lobhotibis cristata*, most of the eggs are removed for artificial incubation and the chicks are hand-reared. This is a safety precaution until the populations reach sufficient levels to guarantee their viability. By hand-rearing the chicks, we were able to raise eight

Southern Bald Ibis in 2009 and 10 Madagascar Crested Ibis.

As in previous years, we did very well with our couas (non-parasitic members of the cuckoo family from Madagascar). We have been especially successful with the Crested Coua *Coua cristata*. Almost 80 chicks have been hatched since 2000. Only hand-rearing was successful in 2009. We lost a few juveniles being reared by their parents, probably due to poor weather. The breeding cycle of the Crested Coua is amongst the fastest of any species of bird. The chicks, up to two in number, hatch after an incubation period of 13 days and remain in the nest for only 11 days before they fledge.

It proved to be quite a productive breeding season for our Greater Roadrunners *Geococcyx californianus*, which successfully reared nine young. There are a number of Greater Roadrunners in European zoos, but despite this the population seems to be in trouble. In the past few years Weltvogelpark Walsrode has been the only institution producing successful breeding results. Unfortunately, almost the entire population seems to be closely related to each other and inbreeding may, in the future, be difficult to avoid.

In 2009, we succeeded in rearing Spectacled Owls *Pulsatrix perspicillata* for the first time at Walsrode. Two of these remarkable coloured owls were reared in our hand-rearing station.

Just three months after they had been introduced to each other, our newly-formed pair of Red-and-yellow Barbets *Trachyphonus e. erythrocephalus* surprised us by producing two chicks. Both turned out to be males (identifiable by their black throat patch), that were left with their parents and assisted with the rearing of a female chick from the subsequent clutch. The pair nested in a burrow in an artificial sandstone wall, intended for bee-eaters. There is an inspection door in the rear section, but following the first few inspections, the pair decided to move the clutch closer to the burrow entrance, where it was not possible to see what was happening. The preferred rearing foods were mealworms and hill mynah pellets that had been soaked.

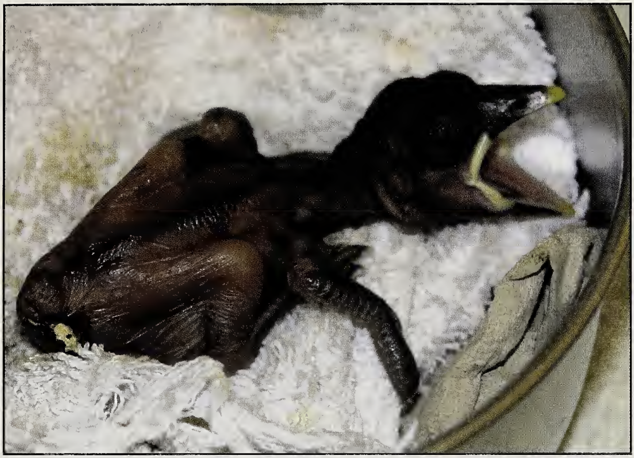
Late in 2008, we received a group of five Sudan Golden Sparrows *Passer luteus*, that began nest building in early spring 2009. Due to a skirmish within the group at the time that the young of the first pair were ready to fledge, the chicks of the second pair were ejected from their nest, the day after hatching. The four minuscule chicks were taken to our hand-rearing station and were reared with surprising ease by our experienced team of keepers. The two pairs went on to rear a further 10 young during 2009, without any more disputes. At about six months of age, the young Sudan Golden Sparrows moulted into adult plumage. Interestingly, two of the young that were hand-reared began nest building and went on to lay eggs, but nothing came of them.

Weltvogelpark Walsrode

Young Greater Roadrunners are initially similar to young couas, however, their husbandry requirements are considerably less demanding.

Ingo Klinger

One of two Sudan Golden Sparrow chicks is offered a mealworm.



Weltvogelpark Walsrode

Four day old Montezuma Oropendola. The pale coloured bill markings probably help the female locate the chick's open gape in the darkness of the hanging nest, which may be up to 1m (3ft 3in) deep. The clutch consists of a single egg and the chick is reared by the female alone.

Our small group of Montezuma Oropendolas *Psarocolius montezuma* is the only such group in Europe (another group is maintained at the Bronx Zoo in New York). For this reason the breeding of this species is particularly important to us. Our birds are kept in our large free-flight aviary, together with species such as Scarlet Ibis *Eudocimus ruber* and Roseate Spoonbills *Platalea ajaja*. They build their impressive hanging nests, made of fresh grass, at the very top of the aviary. The parents having previously been unsuccessful in rearing their young, we decided to try to hand-rear them. The first challenge was to retrieve the eggs, which was not an easy task and required a member of staff with a head for heights. Eventually, we managed to secure two eggs and hatch them successfully but, unfortunately, lost one of the chicks, but to our great joy, the other chick was reared successfully.

For the very latest up-to-date information about what is happening at Weltvogelpark Walsrode you can visit our website:www.weltvogelpark.de

The above report is based on Simon's Weltvogelpark Walsrode March 2010 Newsletter.

HAND-REARING A WHITE-CROWNED ROBIN-CHAT *Cossypha albicapilla* AT EXMOOR ZOO

by Derek Gibson

Exmoor Zoo has for several years exhibited the White-crowned Robin-Chat *Cossypha albicapilla*, but until recently had not succeeded in breeding this charming species. Eggs had been laid on more than one occasion, but had always proved to be clear.

Derek Gibson

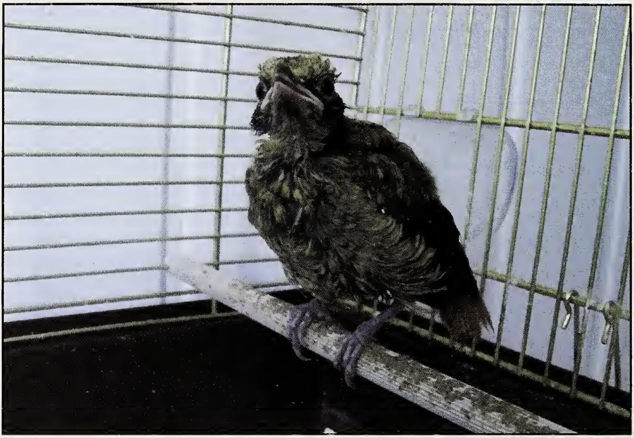
Nest and egg.

Our present pair consists of a male hatched at Jersey Zoo on July 26th 2004 and a female hatched on June 21st 2002 at London Zoo. The pair share a heavily planted aviary with three other species: Red-billed Quelea *Quelea quelea*, Crowned Plover *Vanellus coronatus* and Crested Pigeon *Ocyphaps lophotes*. In 2008, the female robin-chat constructed a nest made of coconut fibres and dried bamboo leaves in a hanging basket some 2m-3m (6ft 6in-9ft 9in) above the ground. A chick hatched, but when it was estimated to have been about two days old, it was found dead on the aviary floor.

The birds were provided with a foraging tray that was filled with moss and Beech leaves *Fagus sylvatica*, to which was added the robin-chats' daily

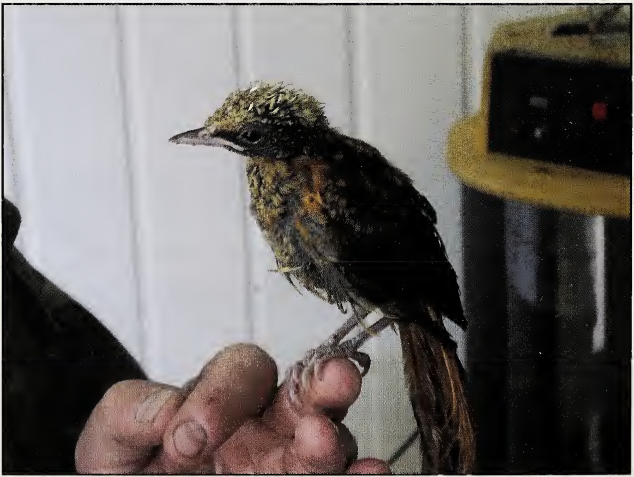
Hand-rearing record of chick hatched on June 16th 2008 at Exmoor Zoo.

Date 16.06.08	Weight 4g	12.30 (12.30pm) Removed from incubator and placed in a brooder set at a temperature of 35°C (95°F); offered a drop of water. 16.30 (4.30pm) Fed ¼ pinkie mouse stomach soaked in water. 19.30 (7.30pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water. 20.30 (8.30pm) Fed ⅛ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted. 23.30 (11.30pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted.
Date 17.06.08	Weight 4g	06.00 (6.00am) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted. 08.00 (8.00am) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted. 09.30 (9.30am) Begging for food; fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water. 10.30 (10.30am) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water. 12.30 (12.30pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted. 14.30 (2.30pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water. 16.30 (4.30pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water. 18.10 (6.10pm) Fed ¼ pinkie mouse stomach soaked in a solution of probiotics and water; faeces noted.
Date 18.06.08	Weight 6g	Food cut into quarters and papaya added to the diet.
Date 19.06.08	Weight 7g	Eyes beginning to slit.
Date 20.06.08	Weight 10g	Eyes continuing to slit; beginning to call.
Date 21.06.08	Weight 13g	Beginning to become vocal; pins beginning to appear on wings; moved to larger box.
Date 22.06.08	Weight 18g	
Date 23.06.08	Weight 22g	Eyes three-quarters open; making no noise.
Date 24.06.08	Weight 27g	Orange feathers beginning to appear on the breast and in the tail.
Date 25.06.08	Weight 31g	
Date 26.06.08	Weight 35g	Food cut into halves.
Date 28.06.08	Weight 38g	
Date 29.06.08	Weight 42g	Three-quarters feathered; calls when hungry.
Date 30.06.08	Weight 44g	
Date 01.07.08	Weight 44g	
Date 02.07.08	Weight 42g	Picking up food; fruits and soaked Zoo Diet A.
Date 03.07.08	Weight 40g	Placed in flight cage.



Derek Gibson

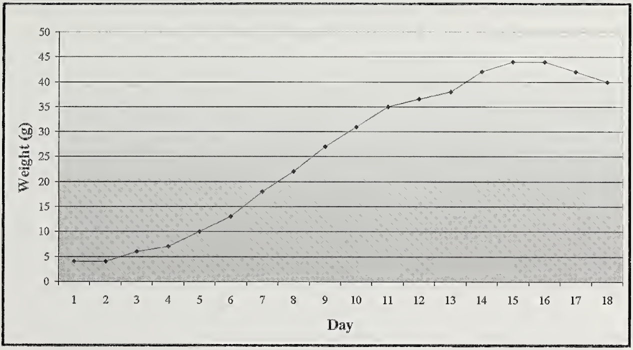
Aged approximately five weeks.



Derek Gibson

Aged approximately seven weeks.

Fig. 1. Growth rate of hand-reared White-crowned Robin-Chat chick.



ration of mealworms, waxmoth larvae and black crickets, the idea being to keep the birds busy while they were rearing their young and, thereby, hopefully, stop them from throwing their chicks out of the nest. This was not to be, however, because once again the pair nested and incubated successfully, but again proceeded to throw the chicks out of the nest.

As the breeding season was rapidly drawing to a close and we desperately wanted the robin-chats' efforts to be successful, the decision was taken to artificially incubate the next clutch of eggs. This we duly did. The eggs measured 25.71mm x 17.77mm and were brown in colour with darker brown blotches. They were placed in an incubator with the temperature set at 37.5°C (99.5°F) with relative humidity of 55%. Both eggs were candled after one week and only one egg proved to be fertile. The incubation period lasted 15 days.

Upon hatching the tiny chick was placed in a small pot lined with kitchen paper and plenty of twigs were added to enable the chick to get a good purchase and help prevent problems with splayed legs. It was moved to a brooder with the temperature set at 35°C (95°F) and the humidity kept initially at 80%. This was then gradually reduced, along with the temperature, over the course of the rearing period.

The chick initially weighed 4g. It was brown/pink in coloration, with a sparse covering of dark yellow wispy down. It was offered food roughly every two hours, from 6.00am-10.00pm (20.00hrs), for the first nine days. This varied somewhat, depending on how hungry the chick actually was. For the first 36 hours the chick was fed small quantities of pinkie mice that had been soaked in a solution of probiotics and water. Papaya was added to the diet on day two.

The young robin-chat went from strength to strength and was soon at the weaning stage. All went very smoothly and the young robin-chat was soon able to be moved into one of our off-display aviaries, with a two year old Snowy-crowned Robin-Chat *C. niveicapilla* for company. The young White-crowned Robin-Chat had begun to sing and was presumed to be a male. However, as both birds of the adult pair sing, a blood sample was taken and DNA sexing confirmed that, as we suspected, it was a male. It later went to make-up a new unrelated pair at Paignton Zoo.

Derek Gibson is Head Keeper at Exmoor Zoo, South Stowford, Bratton Fleming, Nr. Barnstaple, North Devon, UK. Website:www.exmoorzoo.co.uk/ E-mail:exmoorzoo@btconnect.com & derek.r.gibson@btinternet.com

Louise Peat has set up an Avian Rearing Resources Website - www.avianrearingresource.co.uk - which aims to compile current hand-rearing protocols for all species of birds.

* * *

WEEKEND AWAY

The society is planning a trip to the Netherlands (Holland) over the weekend of October 1st-October 4th to visit Burgers' Zoo, Rotterdam Zoo and Vogelpark Avifauna. Further details are available from: Howard Travel, 12/13 Church Walk, Trowbridge, Wiltshire BA14 8DX. Tel:01225 777227 E-mail:karli@howardtravel.com

* * *

ADDITIONAL VISIT

Avicultural Society Council Member Graham Thurlow has arranged a visit to see Richard Green's bird collection near Doncaster in Yorkshire. The visit will take place on Sunday, September 5th and the number of visitors will be strictly limited. Later the same week, on Saturday, September 11th, there will be the previously announced visit to see the bird collection at Leeds Castle, Maidstone, Kent. Further details are available from Stewart Pyper, 21 Primrose Hill, Nunney, Frome, Somerset BA11 4NP. Tel:01373 836293 (after 6.00pm).

BREEDING THE YELLOW-SHOULDERED AMAZON
Amazona barbadensis

by Derian A. Silva Moraton

In recent years, pet parrots have been the subject of much discussion. I have heard it said that they are kept merely for the entertainment of their owners; that they provide no value to the continuation of their species; that they become so imprinted that they can never be used for breeding; and even that the keeping of parrots as pets should be banned. I could write an entire article on all of the claims I have heard. In fact, pet parrots help foster an interest in nature, the sciences and conservation; and they can be as cherished as any family member and grieved over when they die. They can also be a source of revenue for people living in poor, remote areas. I have several friends who keep just a single pet parrot, who have travelled to remote areas to see parrots in the wild, thus fuelling ecotourism and in turn conservation where it really counts - in the country or countries in which the birds occur.

Pet parrots, with some exceptions, can often be used for captive breeding. My experience breeding the Yellow-shouldered Amazon, beginning with a pair of former pet birds, is a good example of this.

The Yellow-shouldered Amazon has a disjunct distribution across northern Venezuela, being found in Falcón, Sucre and Anzoátigui, as well as on the islands of Bonaire, Margarita and Blanquilla. It inhabits dry scrub. Its numbers fluctuate a great deal, diminishing in very inhospitable years (during severe droughts) and flourishing during wet years (when there is good rainfall). There is also pressure on it as the result of birds being taken for the local pet trade. Throughout its range this species is regarded as a good talker and birds are consequently traded (albeit illegally) as pets. Most of the original birds that reached the USA and Europe (mainly through the Canary Islands) were brought back as pets.

As an aviary bird, the Yellow-shouldered Amazon was ignored until the late 1970s and early 1980s, when Ramon Noegel began acquiring single pet birds for breeding. He succeeded in gathering together a small group and, in 1982, bred the species for the first time in captivity. For this achievement he received a first breeding award from the American Federation of Aviculture (AFA). (A little later the same year Rosemary Low bred this species for the first time in the UK.) Since then the Yellow-shouldered Amazon has been bred with greater frequency. Indeed, in 2009 in South Florida no fewer than 63 were produced by a handful of breeders; more were produced by aviculturists in other parts of the USA.

In 1984, I acquired my first Yellow-shouldered Amazons. The two had been pet birds. The male, named Herbie, was quite a character, who was always chattering, dancing and on the move. He was typical of many representatives of his kind - garrulous and hyperactive. The female, Lolita, was the opposite - a morose, barely active and quiet bird. They represented the two personality types that occur. My experience (which many others share) is that the calmer males are the ones that are most likely to be good breeders. The hyperactive birds become so aggressive sometimes that the females eschew them, preventing successful mating.

My two birds, though of contrasting personalities, got along very well. Within months of being placed together the female nested. Only two eggs hatched and both chicks were reared. The male was believed to have been about 23 years old at the time of breeding. The female was acquired as a nestling by its owner in Caracas and subsequently immigrated with her to the USA. The male I acquired on loan and the female was purchased when her owner could not return with it to Venezuela, where she was retiring. One of the youngsters went to the owner of the breeding male, as part of the loan agreement. He was given the name Herbie Jr or simply called Junior.

In late January 2009 I received a call from the daughter of Junior's owner. As her elderly mother was going into a nursing home and was not allowed to keep her bird, she wondered if I would be willing to adopt it. I readily agreed and Junior duly arrived. In many respects he brought back memories of his father. He spends all day chattering and on the move. However, in contrast to his father he is never aggressive. His father was a demon when breeding and more than once bit me as I was changing the food bowls.

Junior passed through quarantine and was kept in the house, but clearly enjoyed being outdoors and spent the summer in a wire gazebo. As he preferred to be outdoors, I introduced him into a cage housing several other Yellow-shouldered Amazons. Within two weeks he had paired with a young female not quite two years of age. She was not unlike his mother - morose and very calm, though for short periods twice a day, she becomes excited and calls. The two birds lived amicably with the others, though they perched separately from them. As there was no outward sign of fighting, I did not separate them.

In April, when I was on my way to Europe on business, the pair began to fight with the other birds. As a temporary measure, my wife placed them in a cage just 3ft long x 2ft wide x 3ft high (approx. 0.9m long x 0.6m wide x 0.9m high). It contained a horizontal box 1ft 2in long x 10in wide x 10in high (35.5cm long x 25.5cm wide x 25.5cm high). The cage was intended to house the pair only until I returned and could build them a flight.

My wife reported that the pair found the cage very much to its liking.

Junior was active and talkative and could chat away to the macaws and cockatoos on either side. I was away longer than I expected and it was almost three weeks before I could begin to build the pair a flight. By then, to my surprise, the female had a swollen vent and, two days short of her second birthday, laid her first egg. She went on to lay a clutch of four eggs, all of which, not unexpectedly, proved to be infertile.

I, therefore, took the opportunity to transfer the pair to the new accommodation I had built. This though was clearly not to their liking. Both sat on the floor and barely ate anything. The male barely moved or talked. After three days, I returned them to the cage and they called excitedly and behaved as if they had been given a new lease on life. Both immediately began eating and bathed in the water bowl. The following day the female was back inside the box. Within three weeks she had laid a second clutch of eggs. Because the birds had been together only a short time and the female was so young, I did not expect the eggs to be fertile. To my surprise, I was proved wrong.

The five eggs were fertile. One of them (probably the first) was cracked accidentally and the second egg failed to develop beyond the second week. The other three hatched successfully. The pair's behaviour was exemplary. The male fed the female for the first week and she in turn fed the young. After the first week, the female would leave the nest and the male would then enter the nest and feed the young. When they were three weeks old, they were removed and hand-reared. All three were weaned successfully and proved to be two females and a male.

They were placed with other Yellow-shouldered Amazons and, in the future, will be used for breeding. When the large number of young bred in 2009 mature, they will boost the potential breeding population of this species. I can clearly see this attractively coloured parrot becoming very well established in captivity.

Parrot behaviour is clearly inherited. Junior's father would chew his tail and flight feathers when the female was incubating the eggs; he clearly missed her and out of boredom damaged his feathers. They grew back again after the young were removed. Junior did the same. When the female no longer had a reason to return to the nest (because the young had been removed), Junior called and became excited - he finally had his playmate back. The two birds were clearly very fond of each other.

My experience demonstrates that former pet birds can and will breed. The natural instinct to reproduce is ingrained in the genes and given the opportunity and suitable conditions, many former pet parrots will breed successfully.

Derian A. Silva Moraton lives at North Miami Beach, Florida, USA.

BREEDING THE TAIWAN YUHINA *Yuhina brunneiceps*

by Gary Bralsford

Back in 1986, I purchased a pair of Taiwan (Formosan) Yuhinas *Yuhina brunneiceps* from a dealer in Derbyshire, here in the UK. He used to have some very nice small softbills, such as Daurian Redstarts *Phoenicurus auroreus*, Blue-and-white Flycatchers *Cyanoptila cyanomelana* and yuhinas.

There was a large bank of cages, one of which contained the pair of yuhinas that were feeding one another. These proved to be a really steady pair of Taiwan Yuhinas, a species endemic to the island of Taiwan, where this most attractively marked yuhina inhabits montane forests.

There were not many Taiwan Yuhinas around at the time. Dave Campbell had imported a few, but there had been no large consignments. The first UK breeding of this species had been achieved by Bob Beeson in 1984 (his account of the breeding was published the following year in *Cage & Aviary Birds*).

I placed my yuhinas on their own in a 10ft x 4ft x 6ft high (approx. 3m x 1.2m x 1.8m high) aviary, with a 5ft x 4ft (approx. 1.5m x 1.2m) shelter inside my shed. I placed half-open-fronted nest boxes and wicker nest-pans inside the shelter and in the outside flight. To provide privacy, all of the nest sites were screened with conifer cuttings. As the floor of the flight was paved with 3ft x 2ft (approx. 90cm x 60cm) paving slabs, I placed tubs of plants around the outside of the aviary. I used Russian Vines *Polygunum baldschuanicum*, honeysuckle *Lonicera* sp. and dwarf conifers. The vines and honeysuckle were secured to bamboo canes and to the dividing wire of the flight with wool.

One day I noticed the larger of the two yuhinas trying to tease out fibres from the wool tying the climbers to the wire and later watched it carrying these fibres to some conifer cuttings I had tied to the aviary wire. After watching this behaviour for about an hour, I could not resist taking a look. I pulled back the conifer cuttings and saw that they had begun to weave a nest platform that they had attached to the conifer stems in the wire. I left them alone for a couple of days and when I looked the second time, the nest was beginning to take shape, with coconut fibre being used and animal hair being used for the lining. However, I was concerned that the nest was top-heavy and looked as so it was about to collapse under its own weight. I quickly cut a piece of chicken wire, which I shaped into a cup. I then wired this to the frame of the flight beneath the nest to support it.

I just hoped that the pair would return to the nest and that I had not disturbed it too much. I sat back and watched and was greatly relieved to see the pair return to the nest and continue lining it. About five days after the pair finished building the nest, the first egg was laid. It was white with faint rust-red markings on the large end. A total of three eggs were laid which were incubated by the female. During the incubation period, I found it hard to resist taking a look every three days or so though, of course, this is not recommended, as it can lead to the eggs and young being deserted. Nowadays, I do not interfere when my birds are breeding, but back in those days I was less aware of the consequences.

Fortunately, the pair was extremely tolerant and after 14 days all three eggs hatched within 24 hours. At the time I was off work following an accident and this meant I had plenty of time to go off and look for livefood. I found a meadow of wild grasses and flowers and, using a fine net, succeeded in catching a wide variety of insects, such as moths, beetles and spiders, which I tipped into large ice cream tubs. I supplemented this wild livefood with mini mealworms, small brown crickets and waxmoth larvae. With this plentiful supply of livefood, the three chicks grew rapidly. Soon the small nest was overflowing with the three almost fully-grown young yuhinas. Then, on the fourteenth day, disaster struck, for I found one of them dead beneath the nest. It was fully feathered and I can only presume that it had fallen out of the nest. The remaining two young fledged at 16 days old and were independent at 30 days.

The pair went on to raise a further three young that year, giving me a total of five for the season. I believe these were only the second and third confirmed breedings of this species in the UK.

In 1986, there was a wealth of birds to chose from and, foolishly, I traded in all seven yuhinas for other softbills. It is something I now very much regret. With the ban on the import of birds into the EU (European Union), there is little chance of this species or other yuhinas becoming available again. The only yuhina being kept in the UK now seems to be the White-collared species *Y. diademata*. According to the latest *FBF Register of Birds Bred in the UK under Controlled Conditions for the Years 2005-2008*, 13 White-collared Yuhinas were bred in 2005, but only one in 2007 and none in 2008. The last recorded breeding of the Whiskered Yuhina *Y. flavicollis* in the UK was in 2001.

Gary would like to hear from anyone who has knowledge or experience of keeping the Taiwan Yuhina.

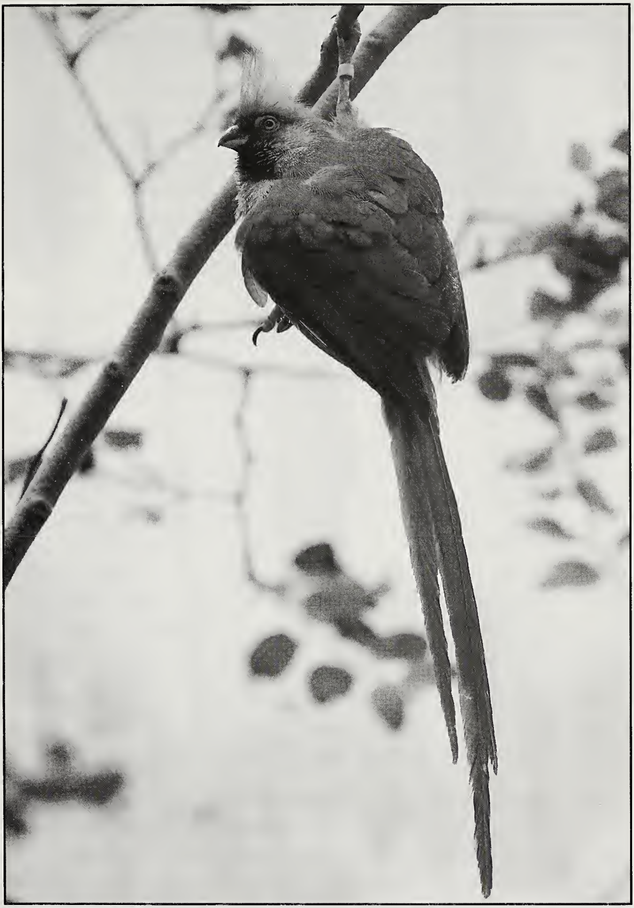
THE MOUSEBIRDS

by Jo Gregson

There are six species of mousebirds, all of which are found in Africa. The name is apt for these long-tailed birds, some with mainly brownish plumage and others with mainly greyish plumage, do indeed resemble mice, as they scurry about in trees and scrubby bushes. Captive mousebirds are most often kept in large tropical houses in which they tend to be seen at a distance or are often overlooked. Unless seen at close proximity they can appear rather drab and uninteresting. At close range, however, the plumage of the most commonly kept species, the Speckled Mousebird *Colius striatus*, is seen to be delicately marked with many shades of brown, and the Blue-naped *Urocolius macroura* and the Red-faced Mousebird *U. indicus* show flashes of bright colouring.

It is certainly worth spending time taking a closer look at these attractive and extremely engaging birds. They are very sociable and live in family groups, that huddle together when roosting and spend a lot of time preening each other. In fact, mousebirds preen their group mates more than do any other group of birds. Mousebirds differ from other birds in a number of ways. The four toes on each foot can, for example, all be used in the forward position and this enables mousebirds to hang from branches, often in small tightly formed groups, thereby saving body heat and protecting each other during rainstorms. Mousebirds have no down feathers and would soon be soaked to the skin and become chilled if they were to roost alone. Their wings are short and rounded, enabling them to fly quickly in short bursts. Long flights are avoided, with mousebirds instead preferring to scramble amongst the branches in search of food. Whereas most birds, when drinking, need to raise their head in order to let the water trickle down their throat, pigeons (and a few other birds) are able to suck up the water without raising their head, and mousebirds drink in a similar manner. They often hang from a branch overhanging water and drink in this way, thereby keeping safe from predators.

Two to three eggs are laid and both the male and female take turns to incubate them. They changeover frequently, with one bird sitting for only an hour or so at a time, before the other takes its place. The eggs hatch after 12 days and the young are fed by both parents, as well as by other members of the group. It is not unusual to find several members of the group roosting together on the nest, sitting on the eggs or brooding the chicks. By the time they are 10 days old, the young are able to climb out of the nest and move about on the branches. At this stage, however, they remain vulnerable and,



Paignton Zoo

**Speckled Mousebird. Clements (2007) listed 17 subspecies.
The eye colour is variable.**

if they fall to the ground, are unable to get back up onto the branches.

When hand-rearing is necessary, at Paignton Zoo we have found that a parrot-rearing diet fed to the chicks through a syringe works very well.

As soon as the chicks are big enough, they are encouraged to hang from a perch, both to strengthen their legs and feet and to ensure that their moist droppings fall clear and do not foul their plumage. Young mousebirds soon learn to pick up chopped, soft fruit, out of a hanging dish.

Hand-reared mousebirds become very tame and crave attention, and are often quite at home clinging to the keeper's shirt as the keeper attends to other duties. As endearing as this may seem, a few plops of digested fruit down the front of your shirt, will soon make you think again. Mousebirds need to eat often and, being fruit-eaters, digest their food very quickly in a matter six to 20 minutes. New birds are readily accepted into a group and will push their way into the middle of the cluster to get warm or to shelter from the rain.

Mousebirds can be pests in fruit-growing areas, consuming fruit, blossom, buds and even soft leaves (as well as large numbers of insects). If large groups are kept in tropical houses, they can do considerable damage to the plant life. Even so they are worthwhile and lively additions to any tropical house.

Jo, who was recently elected an Avicultural Society Council Member, is Curator of Birds at Paignton Zoo Environmental Park, Totnes Road, Paignton, Devon TQ4 7EU, UK. E-mail:jo.gregson@paigntonzoo.org.uk

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FIELD STUDIES

The Field Studies Council (FSC) is an environmental education charity with a network of centres located in many of the most spectacular parts of the UK. It has a wide range of natural history courses, which range from identifying birds by sight and sound to discovering wild flowers. Courses vary in length from a weekend to a week and are available at a choice of different levels. The course fee includes full board accommodation, transport during the course and the expert guidance of its tutors. To view the list of courses available you can go to: http://www.field-studies-council.org/2010/index.aspx or alternatively you can view its ebrochure at: http://view.digipage.net/?id=natural%20history%20courses%202010&page=18

A NOTE ON THE COURTSHIP BEHAVIOUR OF THE COLLARED GROSBEAK *Mycerobas affinis*

by Simon Matthews

During December 2009, here at Waddesdon Manor, a pair of our Collared Grosbeaks which had been first introduced earlier that year and was housed in one of our off-show aviaries, was shut inside the shelter due to the cold weather and in order to treat the pair for suspected aspergillosis. Whilst the pair was shut inside the shelter, very few interactions between the two birds were observed. At the end of the treatment for suspected aspergillosis, on a day when the temperature had risen just above freezing, the pair was allowed access to the outside flight. I was fortunate to be the keeper to release the pair back out into the flight and, after letting the pair out, spent a few minutes cleaning the adjacent flights. The pair was very vocal, with both birds doing a lot of calling and flying back and forth, up and down the flight. At that point, I began to watch the pair more closely in case there was any aggression. The female was chasing the male and calling both whilst in flight and whilst perched; the male called only when perched and just before taking off. The female then began to carry a piece of vegetation (nesting material!). The male then remained on the perch at the opposite end of the aviary from where I was observing them and the female joined him and both birds stopped calling. The female lowered and flattened her body in the customary position ready for copulation and was gently twitching her wings. The behaviour of the male, who was perched a few inches (centimetres) away from the female, was less normal. He lowered his head, so that his back was horizontal and moved his wings fluidly from there, so that his wing tips pointed vertically towards the sky. He held this posture for three to five seconds (not enough time to get a camera unfortunately) before he mounted the female and attempted copulation, which appeared to be unsuccessful.

If anyone has observed similar behaviour by this or related species, I would be interested to hear from them.

E-mail: simon.matthews@nationaltrust.org.uk

BOOK REVIEW

WHILE FLOCKS LAST

Books on our native British birds have been rolling off the presses at an amazing pace in recent years, keeping abreast with the growing number of birdwatchers. When I saw *While Flocks Last* I hesitated. Should I buy it I wondered, or was it just another book that would have little to distinguish it from several other similar books. I did buy it, and from the first page I realised that not only is Charlie Elder, the author, a very accomplished writer but he has a great sense of humour and an imagination that makes one keep turning the pages.

He also hit on a unique idea. An armchair birdwatcher by inclination, he decided to go in search of all of Britain's threatened bird species and relate the adventures he had along the way. A journalist by profession, he decided to somehow fit this venture in between his regular working schedule. As he lives on Dartmoor in south-west England, and many of the species he wanted to see live way up in the north, it involved spending a lot of time alone driving up and back down motorways, much to the despair of his long-suffering family, who thought he was experiencing a mid-life crisis!

In 2009 the BoCC list - *Birds of Conservation Concern* - was revised and a further four species were added to the list. This meant he had to search for 40 rare and elusive birds. I defy anyone to read his account and not laugh out loud. His self-deprecating style and his wonderful descriptions make this book hugely enjoyable. Just let me quote what he wrote about his first sighting of a Hen Harrier, in its stronghold, on the Isle of Man:

"Looking west I noticed that where the weak rays of the pale sun passed through cold air above the distant moors, a tiny dot had appeared. It grew like a swirl of dark gasses and spread until it took the form of a living organism. Wings appeared and with them the power to fly free, and tearing itself from the bonds of light, ripping its feathers into ragged fingers in the process, it emerged into the world of living creatures. Behold! A hen harrier, heading straight towards me!"

This book will make many people stop and think about our native birds, threatened by human activities - the birds most had no idea were threatened. Did Charlie Elder see them all? To find out for yourself you will have read the book.

While Flocks Last (ISBN 978059 3061046) is published by Bantam Press. Price £14.99 hardback.

Rosemary Low

NEWS & VIEWS

FOUR SO FAR

Four Andean Cock-of-the-Rock chicks *Rupicola peruvianus* have been hatched so far this year at Dallas World Aquarium in Texas. It brings the total hatched there since 2007 to 23, of which 16 are still living. Again, both females which have laid each year have produced chicks.

* * *

EUROPE'S LAST JABIRU

Chris Brack has drawn my attention to the fact that the last Jabiru *Jabiru mycteria* in captivity in Europe has died at the bird park at Timmendorfer Strand on the Baltic coast of Germany. The bird, a female named Jabi, died in November 2008. She is said to have lived there for 26 years having, Chris believes, come originally from Vogelpark Walsrode. This Central and South American stork can, he says, still be seen at San Diego Wild Animal Park, which has one, and at Dallas Zoo, which has two unsexed birds, as well as at São Paulo Zoo in Brazil, where there is a female, and at Cali Zoo in Colombia, which has a pair.

* * *

A CASE OF MISTAKEN IDENTITY

Towards the end of my precis-cum-review of the latest *FBF Breeding Register* (Vol.115, No.4, pp.198-199 (2009)), I expressed surprise at the breeding of seven "Scarlet Tanagers *Piranga olivacea*" here in the UK in 2008 and said I would like to know more about the breeding. Nigel Hewston has confirmed that, as I suspected, the birds were not *Piranga olivacea* but *Ramphocelus bresilius*, the Brazilian Tanager, a species that used to be well-known in UK aviculture and was, invariably (and perhaps understandably), known here as the Scarlet Tanager (*Piranga olivacea* being more-or-less unknown in UK aviculture). Nigel said, that the tanagers in question were bred by Terry Sayers, whose report and photos of his birds, appeared in *Foreign Birds* Summer 2009 issue, in which the mistake appeared originally. Reuben Girling has confirmed to Nigel that the record refers to the same birds. Six of these tanagers were bred at Wuppertal Zoo in Germany in 2008. The English summary in the 2008 *Annual Report* listed them as "Silver-beaked Tanagers," but the splendid colour photo on p.13 is of the Brazilian Tanager, which does indeed have a silvery-white base to the lower mandible, not unlike that of the darker coloured Silver-beaked (or Maroon) Tanager *R. carbo*.

THE SECRET OF THE WHISTLE

When describing the management of the Crested Pigeon *Ocyphaps lophotes* at Exmoor Zoo in the previous issue of the magazine (Vol. 115, No.4, pp.185-191 (2009)), Derek Gibson listed four alternative names for this familiar Australian pigeon, one of which is Whistle-winged Pigeon. This is because, as it takes to the air, its rapid wing-beats produce a distinctive whistling sound, which is made by air passing over a modified primary feather in each wing. A report in *Bird Keeping in Australia* Vol. 53, No.4, April 2010, p.65, reveals that in an experiment using a model of an *Accipiter* hawk and then in another in which they did not use a model of a hawk, Robert Magrath and Mae Hingee of the Australian National University in Canberra, discovered that the Crested Pigeon produces two different whistling sounds. One acts as an alarm and causes the birds to take to the sky in panic and the other fails to produce any response at all. To the human ear, the two whistles may sound identical, but acoustic analysis revealed that the two sounds are quite complex and distinctive. The whistling sound that acts as an alarm and causes flocks to flee in panic is louder and has a more rapid tempo, and the birds can obviously instantly pick out the difference between the two.

* * *

SUCCESS WITH SOFTBILLS

When the North American population of the Red-faced Liocichla *Liocichla phoenicea* dropped recently to just 11 birds, North Carolina Zoo stepped in and acquired nine of them and is making a concerted effort to breed this species. So far, three pairs have hatched a total of four chicks. Last year the zoo also bred two Golden-headed Manakins *Pipra erythrocephala*. It is only the second known successful captive breeding of this species in North America. It also succeeded in fledging a Golden White-eye *Cleptornis marchei*. It is believed to be the first ever captive breeding of this species. Other species of softbill bred in 2009, included Turquoise Tanager *Tangara mexicana*, Pekin Robin *Leiothrix lutea* and Horned Lark *Eremophila alpestris*.

* * *

NEW TO AVICULTURE

In a 1925 issue of the magazine (p.191), in what was I suppose the equivalent of the present day News & Views section, the writer noted that Dr Emilius Hopkinson had just arrived in England from the Gambia with several interesting birds, amongst which were two beautiful Chestnut-bellied Starlings *Lamprotornis pulcher*, an African Golden Oriole *Oriolus auratus* and a Blue-bellied Roller *Coracias cyanogaster*. All three of these were believed to be new to aviculture.

INTERNATIONAL SYMPOSIUM ON GALLIFORMES

The World Pheasant Association (WPA), King Mongkut's University of Technology, Thornburi (KMUTT) and the IUCN-SSC/WPA Galliformes Specialist Group, have jointly organised the Fifth International Symposium on Galliformes, which will take place from November 7th-November 14th 2010 at Chiang Mai, Thailand. The subject of the symposium will be the conservation and sustainable management of all species of pheasant, partridge, quail, francolin and guineafowl, with special emphasis on Asia, threatened species and their habitats. In addition, there will be a number of pre- and post-symposium tours and workshops. Further information is available on the WPA website:www.pheasant.org.uk and from Barbara Ingman, Administrator, World Pheasant Association, Newcastle University Biology Field Station, Close House Estate, Heddon on the Wall, Newcastle upon Tyne NE15 0HT.

* * *

AN UNFORESEEN CONSEQUENCE

A report in *Cyanopsitta* No.94, pp.25-26, December 2009, on the trade in African Grey Parrots *Psittacus erithacus*, particularly in Cameroon, but also in other African countries, notes that the EU (European Union) ban on the import of wild-caught birds (which became permanent on July 1st 2007), along with a clampdown since 2007 by CITES (Convention on International Trade in Endangered Species), had a dramatic and perhaps unforeseen affect on the trade in Grey Parrots in Cameroon, which according to official figures exported 367,166 Grey Parrots between 1981- 2005. The most horrifying aspect is that, deprived of their main European market, some trappers have turned to killing the parrots and selling their body parts for use in traditional African rites. An accompanying photo shows a pile of perhaps 200-300 or more Grey Parrot heads and another shows their red tail packed in plastic bags. These are said to fetch prices comparable to those paid for the live birds.

Other traders are selling their birds locally or smuggling them into neighbouring countries, where they are said to fetch better prices than in Cameroon. Many Grey Parrots are exported to South Africa, from where a high proportion are later re-exported. Some traders have, apparently, found ways to export their birds to Middle Eastern and Asian countries. In 2007-2008 substantial numbers of Grey Parrots were imported into Lebanon, Bahrain, Pakistan and Singapore. Birds also came into Europe by way of Serbia, which is not directly affected by the EU ban.

In *PsittaScene* Vol.22, No.1, p.2, February 2010, reference is made to "another massive confiscation" of 1,000 Grey Parrots, the largest single seizure ever recorded in Cameroon. They joined, it is said, several hundred others that were confiscated a few months earlier. The World Parrot Trust (WPT) has dispatched emergency funds to assist with their care.

* * *

PBFD THREAT TO THE CAPE PARROT

Dr Steve Boyes of the Percy Fitzpatrick Institute in South Africa has, thanks to an individual's generous sponsorship, been awarded £820 (approx. US$1,230) by the African Bird Club Conservation Fund, for a study of psittacine beak and feather disease (PBFD) in the largest remaining population of Cape Parrots *Poicephalus robustus.* With an estimated population of 1,000-15,000 birds, the Cape Parrot is threatened by habitat loss, illegal capture for the bird trade and avian diseases. The primary objective of the study is to capture as many of these parrots as possible to discover the incidence of PBFD and other diseases, check their body condition and take blood samples for DNA-archiving, to be used in the forensic investigation into illegal trade. He will also conduct feeding trials, with birds temporarily held in field aviaries, in an attempt to better understand the Cape Parrot's feeding ecology and preference for cultivated (introduced) pecan nuts over its traditional indigenous food sources. Steve Boyes, who previously studied Meyer's or the Brown Parrot *P. meyeri* in the Okavango Delta (see News & Views, pp.94-95, Vol.114, No.2 (2008)) and experimented with the use of nest boxes, to determine if they can be an effective conservation tool, plans to use data from that study to come up with a nest box suitable for the Cape Parrot.

* * *

THE MAGNIFICENT HARPY EAGLE

Miami Metrozoo in Florida last year became only the second zoo in North America to breed the magnificent Harpy Eagle *Harpia harpyja.* The chick's parents were both hatched at San Diego Zoo. A male Harpy Eagle hatched in 1991 at Nuremberg Zoo in Germany arrived recently at Weltvogelpark Walsrode as a potential mate for the park's current female, which originated from South America and arrived in Berlin as a juvenile in 1972. She laid her first eggs in 1979. An earlier attempt was made to pair the male with another female at Walsrode, but proved unsuccessful as did an attempt to pair him with a female at Tierpark Berlin.

MRS E. M. (BETTY) ROBERTS

Those who in the 1960s-1980s bought birds from David Roberts Wildlife Limited, PO Box 1051, Nakuru, Kenya, or have visited Lake Baringo, will be saddened to learn of the death of Betty Roberts, who ran the business for many years following the untimely death of her husband David.

When, as a result of a prolonged drought in, I think the late 1950s and/or the early 1960s, there were not enough tilapia to sustain the fish factory he had established on the shore of Lake Baringo, David Roberts turned instead to the rich variety of birds which, because of the drought, were concentrated on and around the rapidly shrinking lake in even greater numbers than usual.

He became for many zoos, bird gardens and approved private aviculturists, a primary source of African waterbirds such as egrets, herons, pelicans, Blacksmith, Spur-winged and Kittlitz's Plovers, Black-winged Stilts, Avocets, African Jaçanas, Yellow-billed Storks and African Fish Eagles, as well as birds such as Bristle-crowned and Magpie Starlings, d'Arnaud's and Red-and-yellow Barbets, Spotted Morning Warblers and Red-billed Oxpeckers; and from Lake Hannington, later renamed Lake Bogoria, just to the south, Lesser Flamingos.

Following his death at a tragically early age from a "mystery illness," leaving her with six young children (five boys and a girl), Betty remained at Lake Baringo and continued to export birds around the world, right up until the time that the Kenya Government banned the export of birds. Some of the birds, such as several different species of sunbirds, including the Golden-winged, Tacazze and Northern Double-collared, as well as birds such as the Yellow-billed Barbet, robin-chats, Black-headed Gonoleks, Grey-headed Negrofinches, Red-headed Bluebills and Oriole Finches, came from Tim and Jane Barnley on the Cherengani Hills of western Kenya. Most of the Ross's and White-crested Turacos from Kenya at that time, along with the Splendid Starling's, had been hand-reared by Jane.

Earlier this year I received a letter from Betty Roberts, dated January 24th, asking if I had heard the sad news that Julia, the youngest daugther of Jane and the late Tim Barnley, had died the previous evening. Her death was not totally unexpected, but nonetheless came as a terrible shock. Then, only a matter of weeks later, in the course of a telephone conversation with Jane Barnley, I learned that, unbeknown to me, Betty had died "peacefully" a few weeks earlier.

Malcolm Ellis

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CONTENTS

Challenges and opportunities for sustainable wildlife management in Cameroon: the story of Peggy an African Grey Parrot
by Ajaga Nji, Simon A. Tamungang, W. L. Asong, Mbafor Fidelia, Tsafack Antoine and Sabi B. Nji 2

The spirit of Jean Delacour lives on at Parc de Clères
by Pierre de Chabannes 16

Weltvogelpark Walsrode - The beginning of a new era
by Simon Bruslund Jensen 25

Hand-rearing a White-crowned Robin-Chat *Cossypha albicapilla* at Exmoor Zoo
by Derek Gibson 30

Breeding the Yellow-shouldered Amazon *Amazona barbadensis*
by Derian A. Silva Moraton 35

Breeding the Taiwan Yuhina *Yuhina brunneiceps*
by Gary Bralsford 38

The Mousebirds
by Jo Gregson 40

A note on the courtship behaviour of the Collared Grosbeak *Mycerobas affinis*
by Simon Matthews 43

Book Review
While Flocks Last 44

News & Views 45

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